



**Montana Department of  
ENVIRONMENTAL QUALITY**

Brian Schweitzer, Governor

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**PRELIMINARY DETERMINATION  
ON PERMIT APPLICATION**

Date of Mailing: November 17, 2008

Name of Applicant: Fisher Sand and Gravel Co.

Source: Portable Crushing Plant

Proposed Action: The Department of Environmental Quality (Department) proposes to issue a permit, with conditions, to the above-named applicant. The application was assigned Permit Application Number 3172-01.

Proposed Conditions: See attached.

Public Comment: Any member of the public desiring to comment must submit such comments in writing to the Air Resources Management Bureau (Bureau) of the Department at the above address. Comments may address the Department's analysis and determination, or the information submitted in the application. In order to be considered, comments on this Preliminary Determination are due by December 2, 2008. Copies of the application and the Department's analysis may be inspected at the Bureau's office in Helena. For more information, you may contact the Department.

Departmental Action: The Department intends to make a decision on the application after expiration of the Public Comment period described above. A copy of the decision may be obtained at the above address. The permit shall become final on the date stated in the Department's Decision on this permit, unless an appeal is filed with the Board of Environmental Review (Board).

Procedures for Appeal: Any person jointly or severally adversely affected by the final action may request a hearing before the Board. Any appeal must be filed by the date stated in the Department's Decision on this permit. The request for a hearing shall contain an affidavit setting forth the grounds for the request. Any hearing will be held under the provisions of the Montana Administrative Procedures Act. Submit requests for a hearing in triplicate to: Chairman, Board of Environmental Review, P.O. Box 200901, Helena, MT 59620.

For the Department,

Vickie Walsh  
Air Permitting Program Supervisor  
Air Resources Management Bureau  
(406) 444-3490

Kathleen Doran, P.E.  
Environmental Engineer  
Air Resources Management Bureau  
(406) 247-4443

VW: kd  
Enclosure

## AIR QUALITY PERMIT

Issued To: Fisher Sand & Gravel Co.  
P.O. Box 1034  
Dickinson, ND 58602-1034

Permit #3172-01  
Application Complete: 10/16/08  
Preliminary Determination Issued: 11/17/08  
Department Decision Issued:  
Permit Final:  
AFS #777-3172

An air quality permit, with conditions, is hereby granted to Fisher Sand & Gravel Company, hereinafter referred to as "FS&G", pursuant to Sections 75-2-204 and 211, Montana Code Annotated (MCA), as amended, and the Administrative Rules of Montana (ARM) 17.8.740, *et seq.*, as amended, for the following:

### Section I: Permitted Facilities

#### A. Plant Location

FS&G owns and operates a portable crushing plant at various locations throughout Montana. The legal description of the initial facility location is the NW¼ of Section 35, Township 16 North, Range 54 East, in Dawson County, Montana. Permit #3172-01 applies while operating at any location within Montana except those areas having a Department of Environmental Quality (Department) approved permitting program, areas considered tribal lands, or areas in or within 10 kilometers (km) of certain particulate matter with an aerodynamic diameter of 10 microns or less (PM<sub>10</sub>) nonattainment areas. *A Missoula County air quality permit will be required for locations within Missoula County, Montana.* An addendum will be required for locations in or within 10 km of certain PM<sub>10</sub> nonattainment areas. A complete list of permitted equipment can be found in Section I.A. of the permit analysis.

#### B. Current Permit Action

On September 29, 2008, the Department received a request from FS&G to modify their current permit to add a diesel-fired compression engine that will provide power to the crusher. In addition to adding the diesel-fired engine to the permit, this permit action will update the permit to reflect current permit rule references, permit language, permit format and emission factors.

### Section II: Limitations and Conditions

#### A. Emission Limitations

1. All visible emissions from any Standards of Performance for New Stationary Source (NSPS)-affected crusher shall not exhibit an opacity of 15% or greater averaged over 6 consecutive minutes (ARM 17.8.340, ARM 17.8.752, and 40 Code of Federal Regulations (CFR) 60, Subpart OOO).
2. All visible emissions from any other NSPS-affected equipment, such as screens or conveyor transfers, manufactured after August 31, 1983, shall not exhibit an opacity of 10% or greater averaged over 6 consecutive minutes (ARM 17.8.340, ARM 17.8.752, and 40 CFR 60, Subpart OOO).

3. All visible emissions from any non-NSPS affected equipment shall not exhibit an opacity of 20% or greater averaged over 6 consecutive minutes (ARM 17.8.304 and ARM 17.8.752).
4. Water and spray bars shall be available on site at all times and operated as necessary to maintain compliance with the opacity limitations in Sections II.A.1, II.A.2, and II.A.3 (ARM 17.8.749 and ARM 17.8.752).
5. FS&G shall not cause or authorize the use of any street, road, or parking lot without taking reasonable precautions to control emissions of airborne particulate matter (ARM 17.8.308).
6. FS&G shall treat all unpaved portions of the haul roads, access roads, parking lots, or the general plant area with water and/or chemical dust suppressant as necessary to maintain compliance with the reasonable precautions limitation in Section II.A.5 (ARM 17.8.749 and ARM 17.8.752).
7. FS&G shall not operate more than one crusher at any given time and the maximum rated design capacity shall not exceed 300 tons per hour (TPH).
8. Crushing production shall be limited to 2,628,000 tons during any rolling 12-month time period (ARM 17.8.749).
9. FS&G shall not operate more than one diesel-fired engine at any given time and the maximum rated design capacity shall not exceed 450 horsepower (hp) (ARM 17.8.749).
10. If the permitted equipment is used in conjunction with any other equipment owned or operated by FS&G, at the same site, production shall be limited to correspond with an emission level that does not exceed 250 tons during any rolling 12-month time period. Any calculations used to establish production levels shall be approved by the Department (ARM 17.8.749).
11. FS&G shall comply with all applicable standards and limitations, and the reporting, recordkeeping, testing, and notification requirements contained in 40 CFR 60, Subpart OOO (ARM 17.8.340 and 40 CFR 60, Subpart OOO).
12. FS&G shall comply with all applicable standards and limitations, and the reporting, recordkeeping, and notification requirements contained in 40 CFR 60, Subpart IIII, Standards of Performance for Stationary Compression Ignition Combustion Engines and 40 CFR 63, Subpart ZZZZ, National Emissions Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines, for any applicable diesel engine (ARM 17.8.340; 40 CFR 60, Subpart IIII, ARM 17.8.342 and 40 CFR 63, Subpart ZZZZ).

**B. Testing Requirements**

1. Within 60 days after achieving maximum production, but no later than 180 days after initial start up, an Environmental Protection Agency (EPA) Method 9 opacity test and/or other methods and procedures as specified in 40 CFR Part 60.675 must be performed on all NSPS-affected equipment, manufactured after August 31, 1983, to demonstrate compliance with the emission limitations contained in Sections II.A.1 and II.A.2 (ARM 17.8.340, 40 CFR 60, Subpart A

and Subpart 000).

2. All compliance source tests shall conform to the requirements of the Montana Source Test Protocol and Procedures Manual (ARM 17.8.106).
3. The Department may require further testing (ARM 17.8.105).

C. Operational Reporting Requirements

1. If this crushing plant is moved to another location, an Intent to Transfer form must be sent to the Department and a Public Notice Form for Change of Location must be published in a newspaper of general circulation in the area to which the transfer is to be made at least 15 days prior to the move. The Intent to Transfer form and the proof of publication (affidavit) of the Public Notice Form for Change of Location must be submitted to the Department prior to the move. These forms are available from the Department (ARM 17.8.749 and ARM 17.8.765).
2. FS&G shall maintain on-site records showing daily hours of operation and daily production rates for the last 12 months. FS&G shall maintain a list of all sites where the diesel-fired engine was used, including a list of the other permitted sources that the diesel-fired engine was used in conjunction with and the hours it was operated with that source. All records compiled in accordance with this permit shall be maintained by FS&G as a permanent business record for at least 5 years following the date of the measurement, shall be submitted to the Department upon request, and shall be available at the plant site for inspection by the Department (ARM 17.8.749).
3. FS&G shall document, by month, the crushing production from the facility. By the 25<sup>th</sup> day of each month, FS&G shall calculate the crushing production of the facility during the previous month. The monthly information will be used to verify compliance with the limitation in Section II.A.8. The information for each of the previous months shall be submitted along with the annual emission inventory (ARM 17.8.749).
4. FS&G shall document, by month, the total hours of operation of the diesel-fired engine. By the 25<sup>th</sup> day of each month, FS&G shall calculate the hours of operation of the diesel-fired engine for the previous month. The monthly information will be used to verify compliance with the rolling 12-month limitation in Section II.A.10. The information for each of the previous months shall be submitted along with the annual emission inventory (ARM 17.8.749).
5. FS&G shall supply the Department with annual production information for all emission points, as required, by the Department in the annual emission inventory request. The request will include, but not be limited to, all sources of emissions identified in the most recent emission inventory contained in the permit analysis.

Production information shall be gathered on a calendar-year basis and submitted to the Department by the date required in the emission inventory request. Information shall be in units required by the Department. This information may be used for calculating operating fees, based on actual emissions from the facility, and/or to verify compliance with permit limitations (ARM 17.8.505).

6. FS&G shall notify the Department of any construction or improvement project

conducted pursuant to ARM 17.8.745, that would include *the addition of a new emissions unit*, change in control equipment, stack height, stack diameter, stack flow, stack gas temperature, source location, or fuel specifications, or would result in an increase in source capacity above its permitted operation. The notice must be submitted to the Department, in writing, 10 days prior to start-up or use of the proposed de minimis change or as soon as reasonably practicable in the event of an unanticipated circumstance causing the de minimis change and must include the information requested in ARM 17.8.745(1)(d)(ARM 17.8.745).

D. Notification

1. FS&G shall provide the Department with written notification of commencement of construction of a new engine within 30 days after commencement of construction (ARM 17.8.749).
2. FS&G shall provide the Department with written notification of the actual start-up date, engine model, hp, and model year of a new engine within 15 days after the actual start-up date (ARM 17.8.749).

Section III: General Conditions

- A. Inspection - FS&G shall allow the Department's representatives access to the source at all reasonable times for the purpose of making inspections or surveys, collecting samples, obtaining data, auditing any monitoring equipment (Continuous Emission Monitoring System (CEMS), Compliance Emission Rate Monitoring System (CERMS)) or observing any monitoring or testing, and otherwise conducting all necessary functions related to this permit.
- B. Waiver - The permit and all the terms, conditions, and matters stated herein shall be deemed accepted if FS&G fails to appeal as indicated below.
- C. Compliance with Statutes and Regulations - Nothing in this permit shall be construed as relieving FS&G of the responsibility for complying with any applicable federal or Montana statute, rule or standard, except as specifically provided in ARM 17.8.740, *et seq.* (ARM 17.8.756).
- D. Enforcement - Violations of limitations, conditions and requirements contained herein may constitute grounds for permit revocation, penalties or other enforcement as specified in Section 75-2-401 *et seq.*, MCA.
- E. Appeals - Any person or persons jointly or severally adversely affected by the Department's decision may request, within 15 days after the Department renders its decision, upon affidavit setting forth the grounds therefore, a hearing before the Board of Environmental Review (Board). A hearing shall be held under the provisions of the Montana Administrative Procedures Act. The filing of a request for a hearing does not stay the Department's decision, unless the Board issues a stay upon receipt of a petition and a finding that a stay is appropriate under Section 75-2-211(11)(b), MCA. The issuance of a stay on a permit by the Board postpones the effective date of the Department's decision until conclusion of the hearing and issuance of a final decision by the Board. If a stay is not issued by the Board, the Department's decision on the application is final 16 days after the Department's decision is made.
- F. Permit Inspection - As required by ARM 17.8.755, Inspection of Permit, a copy of the air quality permit shall be made available for inspection by Department personnel at the

location of the permitted source.

- G. Permit Fees - Pursuant to Section 75-2-220 MCA, as amended by the 1991 Legislature, failure to pay the annual operation fee by FS&G may be grounds for revocation of this permit, as required, by that section and rules adopted there under by the Board.
- H. Construction Commencement - Construction must begin within 3 years of permit issuance and proceed with due diligence until the project is complete or the permit shall be revoked (ARM 17.8.762).
- I. The Department may modify the conditions of this permit based on local conditions of any future site. These factors may include, but are not limited to, local terrain, meteorological conditions, proximity to residences, etc.
- J. FS&G shall comply with the conditions contained in this permit while operating in any location in Montana, except within those areas having a Department-approved permitting program or areas considered tribal lands.

PERMIT ANALYSIS  
Fisher Sand and Gravel Company  
Permit Number 3172-01

I. Introduction/Process Description

Fisher Sand and Gravel Company (FS&G) owns and operates a portable crushing operation at various locations throughout Montana. The legal description of the initial facility location is the NW¼ of Section 35, Township 16 North, Range 54 East, in Dawson County, Montana.

A. Permitted Equipment

Equipment used at the facility includes, but is not limited to the following:

1. Vertical shaft crusher (up to 300 tons per hour (TPH) maximum capacity);
2. Diesel-fired engine (up to 450 horsepower (hp) maximum capacity);
3. Associated equipment (screens, conveyors, transfer points, etc.).

B. Source Description

FS&G uses this crushing operation and associated equipment to crush and sort sand and gravel materials for use in various construction operations. For a typical operational setup, materials are loaded into a hopper that feeds a conveyor to a portable crushing unit. Material is crushed by the crusher and conveyed to a screen. Properly sized material is conveyed to a stockpile for use and oversized material is conveyed back through the crushing operation and then to a stockpile for use.

C. Permit History

On August 24, 2001, the Department of Environmental Quality (Department) received a complete Montana Air Quality Permit Application from Fisher Sand and Gravel Company (FS&G) to operate a portable crushing facility (maximum capacity 300 TPH) and associated equipment. **Permit #3172-00** became final on October 31, 2001.

D. Current Permit Action

On October 1, the Department received a request from FS&G for a permit modification. Specifically, this permit modification adds a 1998 Cummins diesel-fired engine that is no more than 450 hp. Further, the Department updated the emission inventory for the permitted facility to reflect current rule references, permit language, permit format, and emission factors. **Permit # 3172-01** replaces Permit #3271-00.

E. Additional Information

Additional information, such as applicable rules and regulations, Best Available Control Technology (BACT)/Reasonably Available Control Technology (RACT) determinations, air quality impacts, and environmental assessments, is included in the analysis associated with each change to the permit.

## II. Applicable Rules and Regulations

The following are partial explanations of some applicable rules and regulations that apply to the facility. The complete rules are stated in the Administrative Rules of Montana (ARM) and are available, upon request, from the Department. Upon request, the Department will provide references for locations of complete copies of all applicable rules and regulations or copies where appropriate.

### A. ARM 17.8, Subchapter 1, General Provisions, including, but not limited to:

1. ARM 17.8.101 Definitions. This rule is a list of applicable definitions used in this chapter, unless indicated otherwise in a specific subchapter.
2. ARM 17.8.105 Testing Requirements. Any person or persons responsible for the emission of any air contaminant into the outdoor atmosphere shall, upon written request of the Department, provide the facilities and necessary equipment (including instruments and sensing devices) and shall conduct tests, emission or ambient, for such periods of time as may be necessary using methods approved by the Department.
3. ARM 17.8.106 Source Testing Protocol. The requirements of this rule apply to any emission source testing conducted by the Department, any source, or other entity as required by any rule in this chapter, or any permit or order issued pursuant to this chapter, or the provisions of the Clean Air Act of Montana, 75-2-101, *et seq.*, Montana Code Annotated (MCA).

FS&G shall comply with all requirements contained in the Montana Source Test Protocol and Procedures Manual including, but not limited to, using the proper test methods and supplying the required reports. A copy of the Montana Source Test Protocol and Procedures Manual is available from the Department upon request.

4. ARM 17.8.110 Malfunctions. (2) The Department must be notified promptly by telephone whenever a malfunction occurs that can be expected to create emissions in excess of any applicable emission limitation or to continue for a period greater than 4 hours.
5. ARM 17.8.111 Circumvention. (1) No person shall cause or permit the installation or use of any device or any means that, without resulting in reduction of the total amount of air contaminant emitted, conceals or dilutes an emission of air contaminant that would otherwise violate an air pollution control regulation. (2) No equipment that may produce emissions shall be operated or maintained in such a manner as to create a public nuisance.

### B. ARM 17.8, Subchapter 2, Ambient Air Quality including, but not limited to:

1. ARM 17.8.204 Ambient Air Monitoring
2. ARM 17.8.210 Ambient Air Quality Standards for Sulfur Dioxide
3. ARM 17.8.211 Ambient Air Quality Standards for Nitrogen Dioxide
4. ARM 17.8.212 Ambient Air Quality Standards for Carbon Monoxide
5. ARM 17.8.213 Ambient Air Quality Standard for Ozone
6. ARM 17.8.214 Ambient Air Quality Standard for Hydrogen Sulfide
7. ARM 17.8.220 Ambient Air Quality Standard for Settled Particulate Matter
8. ARM 17.8.221 Ambient Air Quality Standard for Visibility

9. ARM 17.8.222 Ambient Air Quality Standard for Lead
10. ARM 17.8.223 Ambient Air Quality Standard for PM-10
11. ARM 17.8.230 Fluoride in Forage

FS&G must comply with the applicable ambient air quality standards.

C. ARM 17.8, Subchapter 3, Emission Standards, including, but not limited to:

1. ARM 17.8.304 Visible Air Contaminants. This rule requires that no person may cause or authorize emissions to be discharged into the outdoor atmosphere from any source installed after November 23, 1968, that exhibit an opacity of 20% or greater averaged over 6 consecutive minutes.
2. ARM 17.8.308 Particulate Matter, Airborne. (1) This rule requires an opacity limitation of less than 20% for all fugitive emission sources and that reasonable precautions be taken to control emissions of airborne particulate matter. (2) Under this rule, FS&G shall not cause or authorize the use of any street, road, or parking lot without taking reasonable precautions to control emissions of airborne particulate matter.
3. ARM 17.8.309 Particulate Matter, Fuel Burning Equipment. This rule requires that no person shall cause or authorize to be discharged into the atmosphere particulate matter caused by the combustion of fuel in excess of the amount determined by this section.
4. ARM 17.8.310 Particulate Matter, Industrial Processes. This rule requires that no person shall cause or authorize to be discharged into the atmosphere particulate matter in excess of the amount set forth in this section.
5. ARM 17.8.322 Sulfur Oxide Emissions--Sulfur in Fuel. This rule requires that no person shall burn liquid, solid or gaseous fuel in excess of the amount set forth in this section.
6. ARM 17.8.324 Hydrocarbon Emissions--Petroleum Products. (3) No person shall load or permit the loading of gasoline into any stationary tank with a capacity of 250 gallons or more from any tank truck or trailer, except through a permanent submerged fill pipe, unless such tank truck or trailer is equipped with a vapor loss control device as described in (1) of this rule.
7. ARM 17.8.340 Standards of Performance for New Stationary Sources. This rule incorporates, by reference, 40 Code of Federal Regulations (CFR) Part 60, Standards of Performance for New Stationary Sources (NSPS). The owner or operator of any stationary source or modification, as defined and applied in 40 CFR Part 60, NSPS, shall comply with the standards and provisions of 40 CFR Part 60.
  - a. 40 CFR 60, Subpart A – General Provisions apply to all equipment or facilities subject to an NSPS Subpart as listed below:
  - b. 40 CFR, Subpart OOO, Standards of Performance for Nonmetallic Mineral Processing Plants, indicates that NSPS requirements apply to portable crushing/screening facilities with capacities greater than 150 tons per hour (TPH) and that were constructed after August 31, 1983. The FS&G facility has a capacity in excess of 150 TPH and was constructed after August 31,

1983; therefore, NSPS requirements apply to the facility.

- c. 40 CFR 60, Subpart IIII, Standards of Performance for Stationary Compression Ignition (CI) Internal Combustion Engines (ICE), indicates that NSPS requirements apply to owners or operators of stationary CI ICE that commence construction, modification, or reconstruction after July 11, 2005, where the stationary CI ICE is manufactured after April 1, 2006, and is not a fire pump engine. Furthermore, CI ICE will be subject to this NSPS standard only if the engine remains or will remain at the permitted location for more than 12 months, or a shorter period of time for an engine located at a seasonal source. A seasonal source remains at a single location on a permanent basis (at least 2 years) and operates 3 months or more each year.

The proposed 450-hp diesel-fired engine is a CI ICE manufactured before April 1, 2006, and is not a fire pump engine. Since this permit is written in a de minimis friendly manner, this regulation may apply to engines in the future.

- 8. ARM 17.8.342 Emission Standards for Hazardous Air Pollutants for Source Categories. The source, as defined and applied in 40 CFR Part 63, shall comply with the requirements of 40 CFR Part 63, as listed below:
  - a. 40 CFR 63, Subpart A – General Provisions apply to all equipment or facilities subject to a National Emissions Standards for Hazardous Air Pollutants (NESHAPs)/Maximum Achievable Control Technology (MACT) Subpart as listed below:
  - b. 40 CFR, Subpart ZZZZ – National Emissions Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines (RICE). As an area source, any diesel RICE engine operated by FS&G that is new or reconstructed after June 12, 2006, will be subject to this MACT standard if the engine remains or will remain at the permitted location for more than 12 months, or a shorter period of time for an engine located at a seasonal source. A seasonal source remains at a single location on a permanent basis (at least 2 years) and operates 3 months or more each year. However, although diesel RICE engines are an affected source, per 40 CFR 63.5490(b)(3) they do not have any requirements unless they are new or reconstructed after June 12, 2006. Since this permit is written in a de minimis friendly manner, these area source MACT requirements may apply to future engines.

D. ARM 17.8, Subchapter 5, Air Quality Permit Application, Operation, and Open Burning Fees, including, but not limited to:

- 1. ARM 17.8.504 Air Quality Permit Application Fees. This rule requires that an applicant submit an air quality permit application fee concurrent with the submittal of an air quality permit application. A permit application is incomplete until the proper application fee is paid to the Department. FS&G submitted the appropriate permit application fee for the current permit action.
- 2. ARM 17.8.505 Air Quality Operation Fees. An annual air quality operation fee must, as a condition of continued operation, be submitted to the Department by each source of air contaminants holding an air quality permit, excluding an open burning permit, issued by the Department. The air quality operation fee is based

on the actual or estimated actual amount of air pollutants emitted during the previous calendar year.

An air quality operation fee is separate and distinct from an air quality permit application fee. The annual assessment and collection of the air quality operation fee, described above, shall take place on a calendar year basis. The Department may insert into any final permit issued after the effective date of these rules, such conditions as may be necessary to require the payment of an air quality operation fee on a calendar year basis, including provisions that pro-rate the required fee amount.

- E. ARM 17.8, Subchapter 7, Permit, Construction and Operation of Air Contaminant Sources, including, but not limited to:
1. ARM 17.8.740 Definitions. This rule is a list of applicable definitions used in this chapter, unless indicated otherwise in a specific subchapter.
  2. ARM 17.8.743 Montana Air Quality permits – When Required. This rule requires a person to obtain an air quality permit or permit alteration to construct, alter, or use any air contaminant sources that have the Potential to Emit (PTE) greater than 15 tons per year (TPY) of any pollutant. FS&G has a PTE greater than 15 TPY of particulate matter (PM), particulate matter with an aerodynamic diameter of 10 microns or less (PM<sub>10</sub>), and oxides of nitrogen (NO<sub>x</sub>); therefore, an air quality permit is required.
  3. ARM 17.8.744 Montana Air Quality Permits – General Exclusions. This rule identifies the activities that are not subject to the Montana Air Quality Permit program.
  4. ARM 17.8.745 Montana Air Quality Permits – Exclusion for De Minimis Changes. This rule identifies the de minimis changes at permitted facilities that do not require a permit under the Montana Air Quality Permit Program.
  5. ARM 17.8.748 New or Modified Emitting Units – Permit Application Requirements. (1) This rule requires that a permit application be submitted prior to installation, modification, or use of a source. FS&G submitted the required permit application for the current permit action. (7) This rule requires that the applicant notify the public by means of legal publication in a newspaper of general circulation in the area affected by the application for a permit. FS&G submitted an affidavit of publication of public notice for the September 25, 2008 issue of *The Havre Daily News*, a newspaper of general circulation in the city of Havre in Hill County, and an affidavit of publication of public notice for the October 1, 2008, issue of the *Independent Record*, a newspaper of general circulation in the city of Helena in Lewis & Clark County, as proof of compliance with the public notice requirements.
  6. ARM 17.8.749 Conditions for Issuance or Denial of Permit. This rule requires that the permits issued by the Department must authorize the construction and operation of the facility or emitting unit subject to the conditions in the permit and the requirements of this subchapter. This rule also requires that the permit must contain any conditions necessary to assure compliance with the Federal Clean Air Act (FCAA), the Clean Air Act of Montana, and rules adopted under those acts.

7. ARM 17.8.752 Emission Control Requirements. This rule requires a source to install the maximum air pollution control capability that is technically practicable and economically feasible, except that BACT shall be utilized. The required BACT analysis is included in Section III of this permit analysis.
8. ARM 17.8.755 Inspection of Permit. This rule requires that air quality permits shall be made available for inspection by the Department at the location of the source.
9. ARM 17.8.756 Compliance with Other Requirements. This rule states that nothing in the permit shall be construed as relieving FS&G of the responsibility for complying with any applicable federal or Montana statute, rule, or standard, except as specifically provided in ARM 17.8.740, *et seq.*
10. ARM 17.8.759 Review of Permit Applications. This rule describes the Department's responsibilities for processing permit applications and making permit decisions on those permit applications that do not require the preparation of an environmental impact statement.
11. ARM 17.8.760 Additional Review of Permit Applications. This rule describes the Department's responsibilities for processing permit applications and making permit decisions on those applications that require an environmental impact statement.
12. ARM 17.8.762 Duration of Permit. An air quality permit shall be valid until revoked or modified, as provided in this subchapter, except that a permit issued prior to construction of a new or altered source may contain a condition providing that the permit will expire unless construction is commenced within the time specified in the permit, which in no event may be less than 1 year after the permit is issued.
13. ARM 17.8.763 Revocation of Permit. An air quality permit may be revoked upon written request of the permittee, or for violations of any requirement of the Clean Air Act of Montana, rules adopted under the Clean Air Act of Montana, the FCAA, rules adopted under the FCAA, or any applicable requirement contained in the Montana State Implementation Plan (SIP).
14. ARM 17.8.764 Administrative Amendment to Permit. An air quality permit may be amended for changes in any applicable rules and standards adopted by the Board of Environmental Review (Board) or changed conditions of operation at a source or stack that do not result in an increase of emissions as a result of those changed conditions. The owner or operator of a facility may not increase the facility's emissions beyond permit limits unless the increase meets the criteria in ARM 17.8.745 for a de minimis change not requiring a permit, or unless the owner or operator applies for and receives another permit in accordance with ARM 17.8.748, ARM 17.8.749, ARM 17.8.752, ARM 17.8.755, and ARM 17.8.756, and will all applicable requirements in ARM Title 17, Chapter 8, Subchapters 8, 9, and 10.
15. ARM 17.8.765 Transfer of Permit. (1) This rule states that an air quality permit may be transferred from one location to another if the Department receives a complete notice of intent to transfer location, the facility will operate in the new location for less than 1 year, the facility will comply with the FCAA and the

Clean Air Act of Montana, and the facility complies with other applicable rules.  
(2) This rule states that an air quality permit may be transferred from one person to another if written notice of intent to transfer, including the names of the transferor and the transferee, is sent to the Department.

16. ARM 17.8.770 Additional Requirements for Incinerators. This rule specifies the additional information that must be submitted to the Department for incineration facilities subject to 75-2-214, MCA.

F. ARM 17.8, Subchapter 8, Prevention of Significant Deterioration of Air Quality, including, but not limited to:

1. ARM 17.8.801 Definitions. This rule is a list of applicable definitions used in this sub-chapter.
2. ARM 17.8.818 Review of Major Stationary Sources and Major Modifications--Source Applicability and Exemptions. The requirements contained in ARM 17.8.819 through ARM 17.8.827 shall apply to any major stationary source and any major modification with respect to each pollutant subject to regulation under the FCAA that it would emit, except as this sub-chapter would otherwise allow.

This facility is not a major stationary source because it is not a listed source and the facility's PTE is less than 250 tons per year of any pollutant (excluding fugitive emissions).

G. ARM 17.8, Subchapter 12, Operating Permit Program, including, but not limited to:

1. ARM 17.8.1201 Definitions. (23) Major Source under Section 7412 of the FCAA is defined as any stationary source having:
  - a. PTE > 100 ton/year of any pollutant;
  - b. PTE > 10 ton/year of any one Hazardous Air Pollutant (HAP), PTE > 25 ton/year of a combination of all HAPs, or lesser quantity as the Department may establish by rule; or
  - c. PTE > 70 tons/year of PM<sub>10</sub> in a serious PM<sub>10</sub> nonattainment area.
2. ARM 17.8.1204 Air Quality Operating Permit Program Applicability. (1) Title V of the FCAA Amendments of 1990 requires that all sources, as defined in ARM 17.8.1204 (1), obtain a Title V Operating Permit. In reviewing and issuing Air Quality Permit #3172-01 for the FS&G facility, the following conclusions were made.
  - a. The facility's PTE is less than 100 tons/year for any pollutant.
  - b. The facility's PTE is less than 10 tons/year for any one HAP and less than 25 tons/year of all HAPs.
  - c. This source is not located in a serious PM-10 nonattainment area.
  - d. This facility is subject to a current NSPS standard: 40 CFR 60, Subpart OOO and potentially subject to 40 CFR 60, Subpart IIII.

- e. This facility is potentially subject to area source provisions of a current NESHAP standard under 40 CFR 63, Subpart ZZZZ.
- f. This source is not a Title IV affected source or a solid waste combustion unit.
- g. This source is not an EPA designated Title V source.

Based on these facts, the Department has determined that FS&G is not subject to Title V Operating Permit requirements. However, if minor sources subject to NSPS are required to obtain a Title V Operating Permit, FS&G will be required to obtain an operating permit.

### III. BACT Determination

A BACT determination is required for any new or altered source. FS&G shall install on the new or altered source the maximum air pollution control capability that is technologically practicable and economically feasible, except that BACT shall be used.

#### A Diesel-Fired Engine

Because of the limited amount of emissions produced by the diesel-fired engine and the lack of readily available and cost effective add-on controls, add-on controls would be cost prohibitive for the proposed diesel-fired engine. Therefore, the Department determined that proper operation and maintenance with no additional controls constitutes BACT for the diesel-fired engine in this case.

The control options required for the diesel-fired engine have controls and control costs comparable to other recently permitted similar sources and are capable of achieving the appropriate emission standards.

### IV. Emission Inventory

| Source                                                                                                            | Tons/yr |                  |                 |      |       |                 |
|-------------------------------------------------------------------------------------------------------------------|---------|------------------|-----------------|------|-------|-----------------|
|                                                                                                                   | PM      | PM <sub>10</sub> | NO <sub>x</sub> | VOC  | CO    | SO <sub>x</sub> |
| Vertical Shaft Crusher (300 TPH max. capacity)                                                                    | 1.58    | 0.71             | -               | -    | -     | -               |
| Diesel-fired compression engine (450 hp max. capacity)                                                            | 4.34    | 4.34             | 61.10           | 4.95 | 13.17 | 4.04            |
| Screens                                                                                                           | 11.56   | 3.89             | -               | -    | -     | -               |
| Material Transfer                                                                                                 | 0.37    | 0.12             | -               | -    | -     | -               |
| Pile Forming                                                                                                      | 8.46    | 4.02             | -               | -    | -     | -               |
| Loading                                                                                                           | 0.26    | 0.26             | -               | -    | -     | -               |
| Haul Roads                                                                                                        | 5.48    | 2.46             | -               | -    | -     | -               |
| Total                                                                                                             | 32.05   | 15.80            | 61.10           | 4.95 | 13.17 | 4.04            |
| Note:<br>Hours of operation are <b>not</b> limited. FS&G is permitted to operate 8760 hrs/year for this facility. |         |                  |                 |      |       |                 |

#### Vertical Shaft Crusher (300 TPH)

Maximum Process Rate: 300 TPH  
Hours of Operation: 8760 hrs/yr  
Number of Crushers: 1 crusher(s)

#### *PM Emissions*

Emission Factor: 0.0012 lb/ton (AP-42, Table 11.19.2-2, 08/2004 – controlled)  
Calculations:  $0.0012 \text{ lb/ton} * 300 \text{ TPH} = 0.36 \text{ lb/hr}$   
 $0.36 \text{ lb/hr} * 8760 \text{ hrs/yr} * 1 \text{ crusher} * 0.0005 \text{ tons/lb} = 1.58 \text{ tons/yr}$

#### *PM<sub>10</sub> Emissions*

Emission Factor: 0.00054 lb/ton (AP-42, Table 11.19.2-2, 08/2004 – controlled)  
Calculations:  $0.00054 \text{ lb/ton} * 300 \text{ TPH} = 0.16 \text{ lb/hr}$   
 $0.16 \text{ lb/hr} * 8760 \text{ hrs/yr} * 1 \text{ crusher} * 0.0005 \text{ tons/lb} = 0.71 \text{ tons/yr}$

Diesel-Fired Compression Engine (450 hp – permanently mounted to crusher)

Maximum Process Rate: 450 hp  
Hours of Operation: 8760 hrs/yr  
Number of Engines: 1 engine(s)

*PM Emissions*

Emission Factor: 0.0022 lb/hp-hr (AP-42, Section 3.3, Table 3.3-1, diesel fuel - 10/96)  
Calculations:  $0.0022 \text{ lb/hp-hr} * 450 \text{ hp} = 0.99 \text{ lb/hr}$   
 $0.99 \text{ lb/hr} * 8760 \text{ hrs/yr} * 0.0005 \text{ tons/lb} = 4.34 \text{ tons/yr}$

*PM<sub>10</sub> Emissions*

Emission Factor: 0.0022 lb/hp-hr (AP-42, Section 3.3, Table 3.3-1, diesel fuel – 10/96)  
Calculations:  $0.0022 \text{ lb/hp-hr} * 450 \text{ hp} = 0.99 \text{ lb/hr}$   
 $0.99 \text{ lb/hr} * 8760 \text{ hrs/yr} * 0.0005 \text{ tons/lb} = 4.34 \text{ tons/yr}$

*NO<sub>x</sub> Emissions*

Emission Factor: 0.031 lb/hp-hr (AP-42, Section 3.3, Table 3.3-1, diesel fuel – 10/96)  
Calculations:  $0.031 \text{ lb/hp-hr} * 450 \text{ hp} = 13.95 \text{ lb/hr}$   
 $13.95 \text{ lb/hr} * 8760 \text{ hrs/yr} * 0.0005 \text{ tons/lb} = 61.10 \text{ tons/yr}$

*VOC Emissions*

Emission Factor: 0.00251 lb/hp-hr (AP-42, Section 3.3, Table 3.3-1, diesel fuel – 10/96)  
Calculations:  $0.00251 \text{ lb/hp-hr} * 450 \text{ hp} = 1.13 \text{ lb/hr}$   
 $1.13 \text{ lb/hr} * 8760 \text{ hrs/yr} * 0.0005 \text{ tons/lb} = 4.95 \text{ tons/yr}$

*CO Emissions*

Emission Factor: 0.00668 lb/hp-hr (AP-42, Section 3.3, Table 3.3-1, diesel fuel – 10/96)  
Calculations:  $0.00668 \text{ lb/hp-hr} * 450 \text{ hp} = 3.01 \text{ lb/hr}$   
 $3.01 \text{ lb/hr} * 8760 \text{ hrs/yr} * 0.0005 \text{ tons/lb} = 13.17 \text{ tons/yr}$

*SO<sub>x</sub> Emissions*

Emission Factor: 0.00205 lb/hp-hr (AP-42, Section 3.3, Table 3.3-1, diesel fuel – 10/96)  
Calculations:  $0.00205 \text{ lb/hp-hr} * 450 \text{ hp} = 0.92 \text{ lb/hr}$   
 $0.92 \text{ lb/hr} * 8760 \text{ hrs/yr} * 0.0005 \text{ tons/lb} = 4.04 \text{ tons/yr}$

Screen(s)

Maximum Process Rate: 300 TPH  
Hours of Operation: 8760 hrs/yr  
Number of Screen(s): 4 screen(s)

*PM Emissions*

Emission Factor: 0.0022 lb/ton (AP-42 Table 11.19.2-2, 8/2004)  
Calculations:  $0.0022 \text{ lb/ton} * 300 \text{ TPH} = 0.66 \text{ lb/hr}$   
 $0.66 \text{ lb/hr} * 8760 \text{ hrs/yr} * 4 \text{ screen(s)} * 0.0005 \text{ tons/lb} = 11.56 \text{ tons/yr}$

*PM<sub>10</sub> Emissions*

Emission Factor: 0.00074 lb/ton (AP-42 Table 11.19.2-2, 8/2004)  
Calculations:  $0.00074 \text{ lb/ton} * 300 \text{ TPH} = 0.22 \text{ lb/hr}$   
 $0.22 \text{ lb/hr} * 8760 \text{ hrs/yr} * 4 \text{ screen(s)} * 0.0005 \text{ tons/lb} = 3.89 \text{ tons/yr}$

Material Transfer(s)

Maximum Process Rate: 300 TPH  
Hours of Operation: 8760 hrs/yr  
Number of transfer(s): 2 transfer(s)

*PM Emissions*

Emission Factor: 0.00014 lb/ton (AP-42 Table 11.19.2-2, 8/2004 - controlled)  
Calculations:  $0.00014 \text{ lb/ton} * 300 \text{ TPH} = 0.042 \text{ lb/hr}$   
 $0.042 \text{ lb/hr} * 8760 \text{ hrs/yr} * 2 \text{ transfer(s)} * 0.0005 \text{ tons/lb} = 0.37 \text{ tons/yr}$

*PM<sub>10</sub> Emissions*

Emission Factor: 0.000046 lb/ton (AP-42 Table 11.19.2-2, 8/2004 - controlled)  
Calculations:  $0.000046 \text{ lb/ton} * 300 \text{ TPH} = 0.014 \text{ lb/hr}$   
 $0.014 \text{ lb/hr} * 8760 \text{ hrs/yr} * 2 \text{ transfer(s)} * 0.0005 \text{ tons/lb} = 0.12 \text{ tons/yr}$

Pile Forming

Maximum Process Rate: 300 TPH  
Hours of Operation: 8760 hrs/yr  
Number of Pile(s): 2 pile(s)

*PM Emissions*

Emission Factor: 0.00322 lb/ton (AP-42 Section 13.2.4.3 (11/2006) - predictive emission factor, controlled)  
Calculations:  $0.00322 \text{ lb/ton} * 300 \text{ TPH} = 0.966 \text{ lb/hr}$   
 $0.966 \text{ lb/hr} * 8760 \text{ hrs/yr} * 2 \text{ pile(s)} * 0.0005 \text{ tons/lb} = 8.46 \text{ tons/yr}$

*PM<sub>10</sub> Emissions*

Emission Factor: 0.00153 lb/ton (AP-42 Section 13.2.4.3 (11/2006) - predictive emission factor, controlled)  
Calculations:  $0.00153 \text{ lb/ton} * 300 \text{ TPH} = 0.46 \text{ lb/hr}$   
 $0.46 \text{ lb/hr} * 8760 \text{ hrs/yr} * 2 \text{ pile(s)} * 0.0005 \text{ tons/lb} = 4.02 \text{ tons/yr}$

Bulk Loading

Maximum Process Rate: 300 TPH  
Hours of Operation: 8760 hrs/yr  
Number of Load(s): 2 load(s)

*PM Emissions*

Emission Factor: 0.0001 lb/ton (AP-42 Table 11.19.2-2, 8/2004 - controlled)  
Calculations:  $0.0001 \text{ lb/ton} * 300 \text{ TPH} = 0.03 \text{ lb/hr}$   
 $0.03 \text{ lb/hr} * 8760 \text{ hrs/yr} * 2 \text{ load(s)} * 0.0005 \text{ tons/lb} = 0.26 \text{ tons/yr}$

*PM<sub>10</sub> Emissions*

Emission Factor: 0.0001 lb/ton (AP-42 Section 13.2.4.3 (11/2006) - predictive emission factor, controlled)  
Calculations:  $0.0001 \text{ lb/ton} * 300 \text{ TPH} = 0.03 \text{ lb/hr}$   
 $0.03 \text{ lb/hr} * 8760 \text{ hrs/yr} * 2 \text{ load(s)} * 0.0005 \text{ tons/lb} = 0.26 \text{ tons/yr}$

Haul Roads

Vehicle Miles Traveled (VMT): 5 VMT/day (estimate)  
Number of Operating Days: 365 days/yr

*PM Emissions*

PM Emission Factor (Rated Load Capacity <50 tons):  
Emission Factor: 6 lb/VMT (DEQ Policy Statement (Haul Road Emissions Factors) dated 04-25-1994)  
Calculations:  $6 \text{ lb/VMT} * 5 \text{ VMT/day} * 365 \text{ days/yr} * 0.0005 \text{ ton/lb} = 5.48 \text{ tons/yr}$

*PM<sub>10</sub> Emissions*

PM Emission Factor (Rated Load Capacity <50 tons):

Emission Factor: 2.7 lb/VMT (DEQ Policy Statement (Haul Road Emissions Factors) dated 04-25-1994)  
 Calculations: 2.7 lb/VMT \* 5 VMT/day \* 365 days/yr \* 0.0005 ton/lb = 2.46 tons/yr

#### V. Air Quality Impacts

Permit #3172-01 is issued to FS&G for the operation of a portable crushing plant to be initially located in the NW¼ of Section 35, Township 16 North, Range 54 East, Dawson County, Montana. Permit #3172-01 will cover the operation while operating at any location within Montana, excluding those counties that have a Department-approved permitting program, those areas considered tribal lands, or those areas in or within 10 kilometers (km) of certain PM<sub>10</sub> nonattainment areas. An Addendum to Permit #3172-01, including more stringent requirements to protect nonattainment areas, will be required for operating at locations in or within 10 km of certain PM<sub>10</sub> nonattainment areas. *A Missoula County air quality permit would be required for locations within Missoula County.*

In the view of the Department, the amount of controlled emissions generated by this facility will not exceed any set ambient standard.

#### VI. Ambient Air Quality Impacts

The Department determined, based on the relatively small amount of emissions resulting from the FS&G portable crushing operation, that the impact from this permitting action will be minor. The Department believes the amount of controlled emissions generated by this facility will not cause or contribute to a violation of any ambient air quality standard. In addition, this source is portable and any air quality impacts will be minimal and short-lived.

#### VII. Taking or Damaging Implication Analysis

As required by 2-10-101 through 105, MCA, the Department conducted the following private property taking and damaging assessment.

| YES | NO |                                                                                                                                                                                                                                                                               |
|-----|----|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| X   |    | 1. Does the action pertain to land or water management or environmental regulation affecting private real property or water rights?                                                                                                                                           |
|     | X  | 2. Does the action result in either a permanent or indefinite physical occupation of private property?                                                                                                                                                                        |
|     | X  | 3. Does the action deny a fundamental attribute of ownership? (ex.: right to exclude others, disposal of property)                                                                                                                                                            |
|     | X  | 4. Does the action deprive the owner of all economically viable uses of the property?                                                                                                                                                                                         |
|     | X  | 5. Does the action require a property owner to dedicate a portion of property or to grant an easement? [If no, go to (6)].                                                                                                                                                    |
|     |    | 5a. Is there a reasonable, specific connection between the government requirement and legitimate state interests?                                                                                                                                                             |
|     |    | 5b. Is the government requirement roughly proportional to the impact of the proposed use of the property?                                                                                                                                                                     |
|     | X  | 6. Does the action have a severe impact on the value of the property? (consider economic impact, investment-backed expectations, character of government action)                                                                                                              |
|     | X  | 7. Does the action damage the property by causing some physical disturbance with respect to the property in excess of that sustained by the public generally?                                                                                                                 |
|     | X  | 7a. Is the impact of government action direct, peculiar, and significant?                                                                                                                                                                                                     |
|     | X  | 7b. Has government action resulted in the property becoming practically inaccessible, waterlogged or flooded?                                                                                                                                                                 |
|     | X  | 7c. Has government action lowered property values by more than 30% and necessitated the physical taking of adjacent property or property across a public way from the property in question?                                                                                   |
|     | X  | Takings or damaging implications? (Taking or damaging implications exist if YES is checked in response to question 1 and also to any one or more of the following questions: 2, 3, 4, 6, 7a, 7b, 7c; or if NO is checked in response to questions 5a or 5b; the shaded areas) |

Based on this analysis, the Department determined there are no taking or damaging implications associated with this permit action.

## VIII. Environmental Assessment

An environmental assessment, required by the Montana Environmental Policy Act, was completed for this project. A copy is attached.

DEPARTMENT OF ENVIRONMENTAL QUALITY  
Permitting and Compliance Division  
Air and Waste Management Bureau  
1520 East Sixth Avenue  
P.O. Box 200901  
Helena, Montana 59620-0901  
(406) 444-3490

**DRAFT ENVIRONMENTAL ASSESSMENT (EA)**

*Issued For:* Fisher Sand and Gravel Company  
P.O. Box 1034  
Dickinson, ND 58602-1034

*Permit Number:* #3172-01

*Preliminary Determination on Permit Issued:* November 17, 2008

*Department Decision Issued:*

*Permit Final:*

1. *Legal Description of Site:* MAQP #3172-01 would allow FS&G to operate a portable crusher, originally located in the NW¼ of Section 35, Township 16 North, Range 54 East, Dawson County, Montana, to operate at any location in the State of Montana, except within those areas having a Department-approved permitting program, those areas considered tribal lands, or those areas in or within 10 km of certain PM<sub>10</sub> nonattainment areas. *A Missoula County air quality permit would be required for locations within Missoula County, Montana.*
2. *Description of Project:* The permit modification is to update the permit to include the operation of a portable diesel-fired engine (maximum capacity of 450 hp). The process description is discussed in the permit analysis Section I.B of Permit #3172-01.
3. *Objectives of Project:* FS&G submitted the current permit modification to allow for the use of a 450-hp diesel-fired engine that will provide power to the crusher through a gear box. The permit would allow FS&G to produce aggregate to sell to customers in construction.
4. *Alternatives Considered:* In addition to the proposed action, the Department also considered the "no-action" alternative. The "no-action" alternative would deny issuance of the air quality preconstruction permit to the crushing facility. However, the Department does not consider the "no-action" alternative to be appropriate because FS&G demonstrated compliance with all applicable rules and regulations as required for permit issuance. Therefore, the "no-action" alternative was eliminated from further consideration.
5. *A listing of Mitigation, Stipulations, and Other Controls:* A listing of the enforceable permit conditions and a permit analysis, including a BACT analysis, would be contained in Permit #3172-01.
6. *Regulatory Effects on Private Property Rights:* The Department considered alternatives to the conditions imposed in this permit as part of the permit development. The Department determined the permit conditions are reasonably necessary to ensure compliance with applicable requirements and demonstrate compliance with those requirements and do not unduly restrict private property rights.

7. The following table summarizes the potential physical and biological effects of the proposed project on the human environment. The “no action alternative” was discussed previously.

|    |                                                               | Major | Moderate | Minor | None | Unknown | Comments Included |
|----|---------------------------------------------------------------|-------|----------|-------|------|---------|-------------------|
| A. | Terrestrial and Aquatic Life and Habitats                     |       |          | X     |      |         | yes               |
| B. | Water Quality, Quantity, and Distribution                     |       |          | X     |      |         | yes               |
| C. | Geology and Soil Quality, Stability, and Moisture             |       |          | X     |      |         | yes               |
| D. | Vegetation Cover, Quantity, and Quality                       |       |          | X     |      |         | yes               |
| E. | Aesthetics                                                    |       |          | X     |      |         | yes               |
| F. | Air Quality                                                   |       |          | X     |      |         | yes               |
| G. | Unique Endangered, Fragile, or Limited Environmental Resource |       |          | X     |      |         | yes               |
| H. | Demands on Environmental Resource of Water, Air, and Energy   |       |          | X     |      |         | yes               |
| I. | Historical and Archaeological Sites                           |       |          |       | X    |         | yes               |
| J. | Cumulative and Secondary Impacts                              |       |          | X     |      |         | yes               |

#### Summary of Comments on Potential Physical and Biological Effects:

The following comments have been prepared by the Department.

##### A. Terrestrial and Aquatic Life and Habitats

The operation of the diesel-fired engine would have only minor impacts upon the terrestrial and aquatic life and habitats in areas where the diesel-fired engine may operate. Although air pollutant deposition would occur in the areas where the diesel-fired engine would operate; the size and temporary nature of the operation, dispersion characteristics of pollutants, and conditions placed in Permit #3172-01 would result in minor impacts. In addition, the diesel-fired engine would be relatively small by industrial standards and located at previously disturbed sites. Therefore, the operation of the diesel-fired engine would present only minor impacts to the terrestrial and aquatic life and habitats in areas of potential operation.

##### B. Water Quality, Quantity, and Distribution

Although there would be an increase in air emissions in the area where the portable diesel-fired engine would operate, there would only be minor impacts on water quality, quantity, and distribution because of the temporary nature, size, operational requirements, and conditions placed in Permit #3172-01 for the facility. Further, as described in Section 7.F. of this EA, the Department determined that any impacts from deposition of pollutants would be minor. In addition, any accidental spills or leaks from equipment would be required to be handled according to the appropriate environmental regulations in an effort to minimize any potential adverse impact on the immediate and surrounding area. Overall, the addition of the diesel-fired engine would have minor impacts to water quality, quantity, and distribution in the area of operations.

##### C. Geology and Soil Quality, Stability, and Moisture

As a result of the operation of the portable diesel-fired engine, there would be minor impacts to the geology and soil quality, stability, and moisture near the equipment's operational area because of the increased vehicle traffic and deposition of pollutants from the portable engine operations. As explained in Section 7.F. of this EA, the facility's size, operational requirements, temporary nature of the operation, and conditions placed in Permit #3172-01, impacts from deposition would be minimized. In addition, the diesel-fired engine would be relatively small by industrial standards and located at previously disturbed sites, which would also reduce the potential impact to the local geology and soil quality, stability, and moisture.

D. Vegetation Cover, Quantity, and Quality

The operation of the diesel-fired engine would result in minor impacts to the vegetative cover, quantity, and quality, because small amounts of vegetations would likely be disturbed as a result of operating the diesel-fired engine. In addition, pollutant deposition would occur on the surrounding vegetation. However, as explained in Section 7.F. of this EA, the Department determined that, due to the relatively small size and temporary nature of the operation, conditions placed in Permit #3172-01, and dispersion characteristics of the emissions, any impacts from deposition would be minor. In addition, because the water usage would be minor (as described in section 7.B. of this EA), and the associated soil disturbance would be minor (as described in Section 7.C. of this EA), corresponding vegetative impacts from water and soil disturbance would also be minor.

E. Aesthetics

The diesel-fired engine would be visible and would create noise in the areas where it would operate. Permit #3172-01 would include conditions to control emissions (including visible emissions) from the diesel-fired engine and the surrounding work area. The diesel-fired engine would be relatively small by industrial standards and temporary and would be used to power permitted equipment owned by FS&G at previously disturbed sites. Therefore, any aesthetic impact to a given area would be minor and temporary.

F. Air Quality

Air quality impacts from the operation of the diesel-fired engine would be minor because emissions from the diesel-fired engine would be relatively small. Dispersion and deposition of pollutants would occur from the operation of the diesel-fired engine; however, the Department determined that any air quality impacts from the pollutants would be minor.

Permit #3172-01 would include conditions limiting opacity from the diesel-fired engine and would require that reasonable precautions be taken to control emissions from haul roads, access roads, parking lots, or the general work area. In addition, the permit would also limit total emissions from the diesel-fired engine and any additional equipment at the same site to 250 tons per year or less. Further, because the diesel-fired engine potential emissions would be less than 100 tons per year for any pollutant generated, the Department determined that the diesel-fired engine is a minor source of emissions as defined under Title V.

G. Unique Endangered, Fragile, or Limited Environmental Resources

The proposed project would have minor, if any, impact on any unique endangered, fragile, or limited environmental resources because there are no such resources identified in the area. The Department, in an effort to identify any species of special concern associated with the initial site location and to assess any potential impacts, contacted the Montana Natural Heritage Program (MNHP), the U.S. Fish & Wildlife Service, and the Montana Fisheries Information Service. Search results have concluded there is no such environmental resource in the area. Area, in this case, is defined by the township and range of the proposed site, with an additional one-mile buffer. Issuance of Permit #3172-01 would increase emissions to the atmosphere near locations where the operation of the diesel-fired engine might occur, however; as explained in Section 7.F. of this EA, because of the relatively small size and temporary nature of the diesel-fired engine, operating in previously disturbed areas, and conditions placed in this permit, any impacts to unique endangered, fragile, or limited environmental resources from the deposition of pollutants would be minor.

H. Demands on Environmental Resource of Water, Air, and Energy

The diesel-fired engine would be used to provide power to the permitted crusher through a gear box. Water would be used on haul roads, access roads, parking lots, or other general plant property, as necessary, to control dust resulting from indirect use of the diesel-fired engine. Also minor amounts of air would be used in diesel-fired engine operations and air quality would be impacted by pollutant emissions. The diesel-fired engine would consume energy from diesel fuel, a non-renewable resource. Generally, the operations are seasonal and would result in smaller demands on environmental resources. Therefore, any impacts on the demands of the environmental resources of water, air, and energy would be minor.

I. Historical and Archaeological Sites

The crushing operations would locate within a previously disturbed industrial site typically used for portable crushing operations and portable asphalt plants. According to the Montana State Historic Preservation Office, there is low likelihood of adverse disturbance to any known archaeological or historic site, given previous industrial disturbance within the area. Therefore, the operation would not have an effect on any known historic or archaeological site.

J. Cumulative and Secondary Impacts

The operation of the diesel-fired engine would cause minor effects to the physical and biological environment because other operations may potentially locate at the same site. However, any operations would have to apply for and receive the appropriate permits from the Department prior to operation. The permits would address the environmental impacts associated with the operations at the proposed sites. The Department believes that this facility could be expected to operate in compliance with all applicable rules and regulations as would be outlined in Permit #3172-01.

8. The following table summarizes the potential economic and social effects of the proposed project on the human environment. The “no action alternative” was discussed previously.

|    |                                                                 | Major | Moderate | Minor | None | Unknown | Comments Included |
|----|-----------------------------------------------------------------|-------|----------|-------|------|---------|-------------------|
| A. | Social Structures and Mores                                     |       |          |       | X    |         | yes               |
| B. | Cultural Uniqueness and Diversity                               |       |          |       | X    |         | yes               |
| C. | Local and State Tax Base and Tax Revenue                        |       |          | X     |      |         | yes               |
| D. | Agricultural or Industrial Production                           |       |          | X     |      |         | yes               |
| E. | Human Health                                                    |       |          | X     |      |         | yes               |
| F. | Access to and Quality of Recreational and Wilderness Activities |       |          | X     |      |         | yes               |
| G. | Quantity and Distribution of Employment                         |       |          |       | X    |         | yes               |
| H. | Distribution of Population                                      |       |          |       | X    |         | yes               |
| I. | Demands for Government Services                                 |       |          | X     |      |         | yes               |
| J. | Industrial and Commercial Activity                              |       |          | X     |      |         | yes               |
| K. | Locally Adopted Environmental Plans and Goals                   |       |          |       | X    |         | yes               |
| L. | Cumulative and Secondary Impacts                                |       |          | X     |      |         | yes               |

**SUMMARY OF COMMENTS ON POTENTIAL ECONOMIC AND SOCIAL EFFECTS:** The Department has prepared the following comments.

A. Social Structures and Mores

The operation of the diesel-fired engine would not alter or disrupt any local lifestyles or communities (social structures and mores) in the area of operation because the diesel-fired engine would be relatively small by industrial standards, would operate intermittently, and would be used with the additional permitted equipment at a previously disturbed site. Therefore, the existing social structures and mores would not be affected as a result of this permitting action.

B. Cultural Uniqueness and Diversity

It would be unlikely that the operation of the diesel-fired engine would have any impact on the cultural uniqueness and diversity of the proposed area of operation because the diesel-fired engine operations would be temporary and would take place in a previously disturbed industrial area.

C. Local and State Tax Base and Tax Revenue

The operation of the diesel-fired engine would have little, if any, effect on local and state tax base and tax revenue. The facility is a relatively small and temporary source; therefore, it would not remain at any individual site for any extended time period. No full time, permanent employees would be added as a result of issuing Permit #3172-01, and any revenue created by the operation of the diesel-fired engine would be widespread and for a relatively short time period.

D. D. Agricultural or Industrial Production

Under normal circumstances, the operation of the diesel-fired engine would take place in a previously disturbed industrial area. Therefore, the Department does not expect that the operation of the diesel-fired engine operation would affect or displace any agricultural land. Further, the diesel-fired engine operation is small by industrial standards and would have only a minor impact on any local industrial production.

E. Human Health

Permit #3172-01 would incorporate conditions to ensure that the diesel-fired engine would be operated in compliance with all applicable air quality rules and standards. These rules and standards are designed to be protective of human health. As described in Section 7.F. of this EA, the Department determined that any impacts from deposition of pollutants would be minor due to dispersion characteristics and conditions placed in Permit #3172-01. The air emissions from this facility would be minimized by opacity limitations on the diesel-fired engine and the surrounding area of operation.

F. Access to and Quality of Recreational and Wilderness Activities

The diesel-fired engine would be located on previously disturbed property and would not impact access to recreational and wilderness activities. However, minor impacts on the quality of recreational activities might be created by noise from the diesel-fired engine. Emissions from this diesel-fired engine would be minimized due to the temporary and portable nature of the operation.

G. Quantity and Distribution of Employment

Given the relatively small size and temporary nature of the operation, it is not expected that the activities from the operation of the diesel-fired engine would affect the quantity and distribution of employment in any given area. No full time, permanent employees would be hired or discharged as a result of issuing Permit #3172-01.

H. Distribution of Population

Given the relatively small size and temporary nature of the operation, it is not expected that the activities from the diesel-fired engine would disrupt the normal population distribution of any given area. No secondary activities are expected to move to any area as a result of the current project.

I. Demands of Government Services

Government services would be required for acquiring the appropriate permits and ensuring compliance with the permits that are issued; however, the government services required would be minor.

J. Industrial and Commercial Activity

The operation of the diesel-fired engine would represent only a minor increase in the industrial activity in any given area. No additional industrial or commercial activity would result from the operation of the diesel-fired engine because no secondary activities are expected to move to any area as a result of the current project.

K. Locally Adopted Environmental Plans and Goals

The Department is not aware of any locally adopted environmental plans or goals at any given site that the diesel-fired engine might be operated at under Permit #3172-01. The conditions identified in Permit #3172-01 would apply to operation of the diesel-fired engine at any proposed sites.

L. Cumulative and Secondary Impacts

Overall, the cumulative and secondary social and economic impacts from this project would be minor because the diesel-fired engine would originally locate at a previously disturbed gravel pit. New businesses would not be drawn to the area and permanent jobs would not be created or lost due to the operation of the diesel-fired engine. Because no new employees would be hired due to the operation of the diesel-fired engine, there would be no economic impacts from new employees. In addition, any social and economic impacts that are created would be minor and short-lived because of the relatively small size and temporary nature of the operation.

*Recommendation:* An Environmental Impact Statement (EIS) is not required.

*If an EIS is not required, explain why the EA is an appropriate level of analysis:* All potential effects resulting from construction and operation of the proposed facility are minor; therefore, an EIS is not required. In addition, the source would be applying the Best Available Control Technology and the analysis indicates compliance with all applicable air quality rules and regulations.

*Other groups or agencies contacted or that may have overlapping jurisdiction:* Department of Environmental Quality - Permitting and Compliance Division (Air Resource Management Bureau and Industrial and Energy Minerals Bureau); Montana Natural Heritage Program; State Historic Preservation Office (Montana Historical Society); U.S. Fish & Wildlife Service; and Montana Fisheries Information Service.

*Individuals or groups contributing to this EA:* Department of Environmental Quality (Air Resource Management Bureau and Industrial and Energy Minerals Bureau), Montana Natural Heritage Program, and State Historic Preservation Office (Montana Historical Society).

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